

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A self calibrating network comprising:  
a first node to transmit ~~transmitting~~ a test signal ~~calibration data packet~~; and  
a second node to receive ~~receiving~~ said test signal ~~calibration data packet~~ and to determine ~~determining~~ a calibration value for said second node to optimize a transfer of data ~~from~~ between said first node ~~[[to]]~~ and said second node, said calibration value being determined from at least one of available criteria comprising a noise measurement value, a propagation delay value and a bit rate error value.
2. (previously presented) The self calibrating network according to claim 1, wherein:  
said second node stores said calibration value in a calibration memory.
3. (currently amended) The self calibrating network according to claim 1, wherein:  
said test signal ~~calibration data packet~~ contains a node identification associated with said first node.
4. (currently amended) The self calibrating network according to claim 1, wherein:  
said second node repeatedly accepts copies of said test signal ~~calibration data packet~~ from said first node until the transfer of data from said first node to said second node is optimized.

5. (previously presented) The self calibrating network according to claim 2, wherein:

said calibration memory stores said calibration value associated with a node identification.

6. (currently amended) The self calibrating network according to claim 1, wherein:

said first node repeatedly transmits a test signal ~~calibration data packet~~ until said second node acknowledges an optimal calibration value has been determined.

7. (previously presented) The self calibrating network according to claim 1, wherein:

said one of said first node or said second node issues a network lock command on the network, ceasing nodes other than said first node or said second node from communicating on the network.

8. (previously presented) The self calibrating network according to claim 7, wherein:

said first node or said second node issues an unlock command on the network, giving permission to all nodes on the network to again begin communication.

9. (currently amended) A method for self calibrating a network comprising:

transmitting a test signal ~~calibration data packet~~ from a first node;  
and

receiving said test signal ~~calibration data packet~~ by a second node  
and determining a calibration value for said second node to optimize a transfer of  
data ~~from~~ between said first node ~~[[to]]~~ and said second node, said calibration  
value being determined from at least one of available criteria comprising a noise  
measurement value, a propagation delay value and a bit rate error value.

10. (previously presented) The method for self calibrating a  
network according to claim 9, further comprising:

storing said calibration value in a calibration memory.

11. (currently amended) The method for self calibrating a network  
according to claim 9, further comprising:

associating a node identification associated with said first node in  
said test signal ~~calibration data packet~~.

12. (currently amended) The method for self calibrating a network  
according to claim 9, further comprising:

repeatedly accepting copies of said test signal ~~calibration data~~  
~~packet~~ by said second node from said first node until the transfer of data from  
said first node to said second node is optimized.

13. (previously presented) The method for self calibrating a  
network according to claim 10, further comprising:

storing in said calibration memory said calibration value associated  
with a node identification.

14. (currently amended) The method for self calibrating a network according to claim 9, further comprising:

repeatedly transmitting from said first node a test signal ~~calibration data packet~~ until said second node acknowledges an optimal calibration value has been determined.

15. (currently amended) The method for self calibrating a network according to claim 9, further comprising:

issuing from said one of said first node or said second node a network lock command on the network[[,]];

ceasing nodes other than said first node or said second node from communicating on the network.

16. (previously presented) The method for self calibrating a network according to claim 15, further comprising:

issuing from said first node or said second node an unlock command on the network, giving permission to all nodes on the network to again begin communication.

17. (currently amended) A means for self calibrating a network comprising:

[[a]] transmitter means for transmitting a test signal ~~calibration data packet~~ from a first node; and

[[a]] receiver means for receiving said test signal ~~calibration data packet~~ from said first node and determining a calibration value for said second node to optimize a transfer of data ~~from~~ between said first node [[to]] and said second node, said calibration value being determined from at least one of available criteria comprising a noise measurement value, a propagation delay value and a bit rate error value.

18. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[a]] storage means for storing said calibration value in a calibration memory.

19. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[an]] associate means for associating a node identification with said first node in said test signal ~~calibration data packet~~.

20. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[a]] repeated acceptor means for repeatedly accepting copies of said test signal ~~calibration data packet~~ by said second node from said first node until the transfer of data from said first node to said second node is optimized.

21. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[a]] storage means in said calibration memory, said calibration value being associated with a node identification.

22. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[a]] repeated transmitter means repeatedly transmitting from said first node a test signal ~~calibration data packet~~ until said second node acknowledges an optimal calibration value has been determined.

23. (currently amended) The means for self calibrating a network according to claim 17, further comprising:

[[an]] issue means for issuing from said one of said first node or said second node a network lock command on the network, ceasing nodes other than said first node or said second node from communicating on the network.

24. (currently amended) The means for self calibrating a network according to claim 23, further comprising:

[[an]] issue means for issuing from said first node or said second node an unlock command on the network, giving permission to all nodes on the network to again begin communication.